Bulletin 395 June 1947

Maturity Ratings of

Corn Hybrids

Registered for Sale in Minnesota in 1946

•

R. F. Crim, H. K. Hayes, E. H. Rinke,
Gertrud Joachim, R. E. Hodgson,
R. O. Bridgford, and O. C. Soine

Agricultural Experiment Station
UNIVERSITY OF MINNESOTA

CONTENTS

Submitted for publication March 18, 1947

8500—6-47

Maturity Ratings of Corn Hybrids Registered for Sale in Minnesota in 1946

R. F. Crim, H. K. Hayes, E. H. Rinke, Gertrud Joachim, R. E. Hodgson, R. O. Bridgford, and O. C. Soine[1]

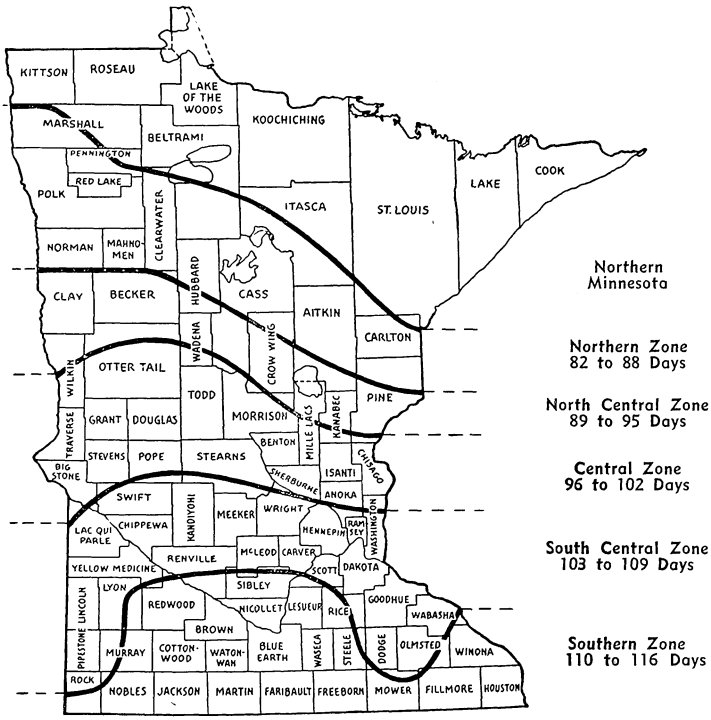
HYBRID CORN varieties of commercial seed companies and experiment station origin registered for sale in Minnesota for the 1946 growing season were classified for maturity. The maturity trials were conducted under the direction of the Minnesota Agricultural Experiment Station in cooperation with the Weed and Seed Division of the Bureau of Plant Industry, State Department of Agriculture, Dairy, and Food. County agricultural agents of Martin, Nobles, Renville, Yellow Medicine, West Otter Tail, Wadena, Becker, Clay, East Polk, and Marshall counties assisted in locating farms on which trials were conducted, in finding help, and in holding field demonstration meetings at the time of harvest. All hybrids were grown in replicated field trials and tested in the zones in which they were registered for sale. The moisture content at the time of husking was determined. The comparison of moisture content at husking time seems to be the most desirable method that can be used to determine the adaptability of hybrids to the various corn-growing areas of Minnesota. A map indicating the five corn maturity zones of the state is presented on page 4.

SEED FOR THE TRIALS was collected by the seed and weed inspectors, State Department of Agriculture, Dairy, and Food. Each hybrid not tested for a three-year period previous to 1946 was planted in three replications in trials in each of three different counties located in the maturity zone in which the hybrid was registered. Each plot was harvested separately and moisture percentages for each plot were determined at the time of harvest.

Data from each trial within a maturity zone were averaged, and, if a hybrid was tested in the same zone for two or three years, an average per cent of moisture for the period was obtained. The hybrids tested in a zone were arranged in order according to their average moisture percentages for the years tested.

[1]Acknowledgment is made to the Bureau of Plant Industry of the State Department of Agriculture, Dairy, and Food for collecting samples from seed stocks offered for sale and for aid in financing the cost of labor in the preparation of seed, planting, and harvesting. The Minnesota Agricultural Experiment Station assumes entire responsibility for the analysis of the data.

MATURITY ZONES



Zones indicate the approximate number of days growing season that may be expected from emergence after planting to maturity, the stage of being well dented before a killing frost.

An average least significant difference in moisture percentage was calculated to give odds of 19 to 1 that a difference as great as this was a true difference.

Minhybrids adapted to a particular zone were used as standards in the comparisons. The moisture percentages at husking and the calculated levels of significance for differences in moisture content at the 5 per cent level (odds 19:1), were used in determining maturity ratings for hybrids tested. The days of maturity given the different hybrids were arranged on the basis of adaptation of the various Minhybrids to the earlier, later, or central region of the maturity zone.

In addition to the Minhybrids adapted and recommended for a zone as standards, other Minhybrids adapted to the zone immediately south of the zone where the trials were being conducted were included also. Thus in 1946, for example, Minhybrid 702 was included in the trials conducted in the Northern Zone. In the North Central Zone Minhybrids 800 and 801, adapted to the Northern Zone, and Minhybrids 602, 604, and 607, adapted to the Central

Zone, were included. In the Central Zone Minhybrids 603, 500, 503, 504, and 505, adapted to the South Central Zone, were grown. Minhybrid 602, adapted to the Central Zone, and Minhybrid 408, adapted to the Southern Zone, were included in the South Central Zone. In the Southern Zone Minhybrids 301, 500, 403, 503, 504, and 505, adapted to the South Central Zone, were grown. In general, the various Minhybrids retained the same relative positions for maturity regardless of the zone in which the test was conducted. When a hybrid considered adapted to a particular zone, for example the Central Zone, is grown in the North Central, it usually is classified a few days earlier in maturity than in the zone where it appears to be best adapted. In a somewhat similar manner when a hybrid is grown in the zone immediately south of the one where it seems best adapted, it is classified a little later for days of maturity than in the zone where it is best adapted.

The hybrids that are considered to have a satisfactory test for a three-year period prior to 1946 were grown in a single locality only in 1946 and have not been reclassified. These hybrids, their zone of adaptation, and classification for maturity are given in table 1. In this table they are listed alphabetically within each of the five maturity zones.

Table 1. Hybrids Registered for Sale in 1946 and Rated for Maturity for a Three-Year Period Previous to 1946

Variety name	Maturity rating in days Minn. Expt. Sta.
SOUTHERN ZONE	
Brookfield 87	112-116
DeKalb 410	112-116
DeKalb 404A	116-120
DeKalb 615	118-122
DeKalb 422	118-122
DeKalb 606	120-124
Farmers 388	114-118
Henry Field 116	116-120
Henry Field 116L	116-120
Henry Field 116R	118-122
Funk's G-7	112-116
Funk's G-114	118-122
Funk's G-16	118-122
Funk's G-29	118-122
Funk's G-66	120-124
Haapala Hybrid Silo 30	110-114
Iowealth A	112-116
Iowealth AF11	114-118
Iowealth 16	118-122
Iowealth AQ	118-122
Iowealth BC4	120-124
Iowealth 25	122-126
Jacques 1102J	109-113
Jacques 1104J	109-113
Jacques 1108J	110-114
Jacques 1154	112-116
Kingscrost KR2	114-118
Kingscrost KY	116-120
Lowe 14	120-124
Master F105	110-114
Master F101	114-118
Master F106	116-120
McNeilly 1940	114-118
McNeilly 939	116-120
McNeilly 1951A	116-120
McNeilly 1940A	120-124
Minhybrid 404	108-112
Minhybrid 405	110-114
Mullins J25	114-118
Mullins J30	114-118
Pfister 266	114-118
Pfister 280	118-122
Pfister 366	118-122
Pfister 380	118-122
Pfister 260	120-124
Pfister 360	120-124
Pioneer 373	109-113
Pioneer 353A	110-114
Pioneer 353	110-114
Pioneer 322	112-116
Pioneer 330	118-122
Pride D54	109-113
Pride B58	110-114
Pride D73	116-120
Reid National 112_2	110-114
Reid National 110	112-116
Reid National 110_2	112-116
Reid National 112	112-116
Reid National 116W	114-118
Reid National 114_2	116-120
Reid National $110A_1$	116-120
Reid Bred FO	116-120
Reid National 118R	118-122
Reid National 116R	120-124

Table 1. Hybrids Registered for Sale in 1946 and Rated for Maturity for a Three-Year Period Previous to 1946 (Continued)

Variety name	Maturity rating in days Minn. Expt. Sta.
Reid National 117$_1$	120-124
Thompson 26	112-116
Thompson 36	112-116
Thompson 52	114-118
Thompson 45	116-120
Thompson 27	116-120
Thompson 46	118-122
Thompson 47	118-122
Turner N15	110-114
Turner 939	114-118
Turner L103	116-120
Vinton V32	114-118
Vinton 942	114-118
Vinton 939	116-120
Wisconsin 570	109-113
Wisconsin 606	110-114
Wisconsin 692	118-122
SOUTH CENTRAL ZONE	
Brookfield 69	105-109
Cargill 105N	106-110
DeKalb 78	106-110
Haapala 202	106-110
Kingscrost M2	106-110
Master F82	104-108
Minhybrid 301	105-109
Minhybrid 403	106-110
Minhybrid 500	104-108
Pioneer 355	105-109
Pioneer 358	106-110
Pointer 350	105-109
Pride C39	104-108
Pride D43	105-109
Pride B45	105-109
Reid National 107W	106-110
Reid National 104W	106-110
Turner E4	105-109
Wisconsin 531	105-109
CENTRAL ZONE	
Minhybrid 602	98-102
Minhybrid 604	100-104
Minnesota Seed Company V170	100-104
Wisconsin 460	100-104
Pride D33	100-104
Pride D36	100-104
NORTH CENTRAL ZONE	
Cargill 90N	89- 93
DeKalb 66	91- 95
Jacques 906	89- 93
Jacques 907	91- 95
Jacques 955J	93- 97
Kingscrost KE1	87- 91
Master F40	87- 91
Minhybrid 702	87- 91
Minnesota Seed Company V125	89- 93
Wisconsin 355	89- 93
Wisconsin 335	91- 95
Wisconsin 325	91- 95

INDEX OF HYBRIDS AND PRODUCERS

Hybrid Designation	Name of Producer and Address
AGSCO	Agricultural Supply Co., Grand Forks, North Dakota
Brookfield	Brookfield Seed Co., Hector, Minnesota
Beeghly	Milford Beeghly, Pierson, Iowa
Cargills	Cargill Inc. (Seed Division), Minneapolis, Minnesota
Carlson	Carlson Hybrid Corn Co., Audubon, Iowa
Cornmaster	W. C. McCurdy and Sons, Fremont, Iowa
Crystal	Cargill Inc. (Seed Division), Minneapolis, Minnesota
DeKalb	DeKalb Agricultural Assoc., Inc., DeKalb, Illinois
Eggerth	Charles Eggerth, Swea City, Iowa
Elephant Fodder Corn	Albert Lea Seed House, Albert Lea, Minnesota
Epley	Epley Bros., Shell Rock, Iowa
Farmers	Farmers Hybrid Seed Corn Co., Hampton, Iowa
Farmers Union	Farmers Union Co-op Seed Service, Cedar Falls, Iowa
Funk's	Funk Bros. Seed Co., Belle Plaine, Iowa
Grohe	John Grohe, Lake View, Iowa
Gurney	Gurney's Seed and Nursery Co., Yankton, South Dakota

Hybrid Designation	Name of Producer and Address
Haapala	Levi Haapala and Sons, Dassel, Minnesota
Heim's	Heim's Hybrid Seed Corn Co., Lake City, Iowa
Henry Field	Henry Field Seed Co., Shenandoah, Iowa
Iowealth	Columbia Hybrid Seed Co., Sioux City, Iowa
Jacques	Jacques Seed Co., Prescott, Wisconsin
King-O-Corn	Great Plains Seed Co., Sioux Falls, South Dakota
Kingscrost	Northrup King and Co., Minneapolis, Minnesota
Knudsen	F. N. Knudsen, Kanawha, Iowa
Krizer's	Krizer's Hybrid Seed Corn Farms, Oskaloosa, Iowa
Lac qui Parle	Harry V. Peterson, Gary, South Dakota
Land O'Lakes, LOL	Land O'Lakes Creameries, Inc., Minneapolis, Minnesota
Lowe	Lowe Seed Co., Aroma Park, Illinois
McCurdy	W. C. McCurdy and Sons, Fremont, Iowa
McNeilly	J. R. McNeilly, Maquoketa, Iowa
Master	Farmer Seed and Nursery Co., Faribault, Minnesota
Matheson	L. V. Matheson, Buffalo Center, Iowa
Minhybrid	Minnesota Agr. Expt. Sta., St. Paul, Minn.
Minnesota Seed Co.	Minnesota Seed Co., Faribault, Minnesota
Minowa	Henry Leitschuh, Sleepy Eye, Minnesota
Moeller's	A. W. Moeller and Son, Somers, Iowa
Moews	Moews Seed Co., Granville, Illinois
Mullins	Mullins Hybrid Corn Co., Corwith, Iowa
Newday	Newday Seeds, Inc., Fargo, North Dakota
Nietfeld N-23	Conrad Nietfeld, Melrose, Minnesota
Parcaut's	Frank Parcaut, Sutherland, Iowa
Pfister	Pfister Associated Growers, Inc., El Paso, Illinois
Pioneer	Pioneer Hi-Bred Corn Company, Des Moines, Iowa
Pointer	Pointer Hybrid Corn Co., Shakopee, Minnesota
Pride	Twin City Seed Co., Pride Hybrid Co., Minneapolis, Minnesota
Quirams	Quirams Seed Corn Farms, Waterville, Minnesota
Reid Bred	Reid National Corn Co., Anamosa, Iowa
Reid National	Reid National Corn Co., Anamosa, Iowa
Renk R	William F. Renk and Sons, Sun Prairie, Wisconsin
Royal	Great Plains Seed Co., Sioux Falls, South Dakota
Sokota	Sokota Hybrid Producers, Brookings, South Dakota
Thompson	Thompson Hybrid Corn Co., Belmond, Iowa
Todd Hybrid	Lester Todd and Sons, St. Charles, Minnesota
Tomahawk	Thompson Hybrid Corn Co., Belmond, Iowa
Triumph	Robert Blanchar, Triumph, Minnesota
Turner	Turner Hybrid Seed Corn Co., Grand Junction, Iowa
Vinton	Vinton Hybrid Corn Co., Vinton, Iowa
Ward Hybrid	Montgomery Ward, Chicago, Illinois
Wisconsin	Wisconsin Agr. Expt. Sta., Madison, Wisconsin

In the Southern Zone Minhybrids 404 and 405 are used as standards and are among the earlier hybrids tested in that zone, while Minhybrids 407 and 408 are the latest Minhybrids grown in the trials. The maturity classification of hybrids registered for the Southern Zone is given in table 2. The difficulties of an exact classification for maturity when only a single season's data are available are evident if one observes the Minhybrids tested in 1946. While Minhybrids 500, 301, and 403 were lowest in moisture content, as would be expected, Minhybrid 405 had a lower moisture content than 503, 504, and 505. Minhybrid 404, however, though averaging as early as Minhybrid 405 for several years of trial, was higher in moisture content in 1946 than Minhybrids 503, 504, and 505. For these reasons a single season's study gives only an approximate classification for the maturity of the hybrids.

Those with maturity ratings of 115-119 days or later are considered to be later in maturity than is usually desirable, on the average, for the zone. Two hundred and eleven hybrids, not including Minhybrids, were classified for maturity. Sixty-two of these were classified as having maturity ratings of 115-119 days or higher. Of hybrids other than Minhybrids tested for a three-year period and reported in table 2, 27 out of 49 are considered too late for the zone.

Data for maturity classification in the South Central Zone are given in table 3. Minhybrid 500 rather consistently has a lower moisture content than other Minhybrids in the 500 series, while Minhybrids 301 and 403 have a lower moisture content than 503, 504, and 505.

Data on moisture content at husking for 1946 in the South Central Zone indicate again some of the difficulties in classifying hybrids for maturity on the basis of a single season's trials. Minhybrid 602, used as an early maturing check, had a somewhat higher moisture content in comparison with 500 than has been obtained where several seasons' trials are available. Minhybrid 408, however, adapted to the Southern Zone, retained its relative position when tested in the South Central Zone.

Considering all hybrids registered for sale in the South Central Zone in 1946, except the Minhybrids grown, 33 out of 113 were classified in maturity classes of 108-112 days or higher, and are considered too late in maturity to be adapted to the South Central Zone.

The results of maturity trials for the Central, North Central, and Northern zones are given in tables 4, 5, and 6 respectively. Minhybrid 500, grown for several years as a late-maturing check in the Central Zone, was higher in moisture content than any of the 600 series, while Minhybrids 503, 504, and 505, that have been tested only for a two-year period in this zone, were higher in moisture content than 500, which is similar to the relationship found in the South Central Zone. Eighteen of the 49 hybrids tested in the Central Zone, other than Minhybrids, were classified with maturity ratings of 101-105 days or higher, and are considered to be adapted to the South Central Zone. In the North Central Zone 29 of the 66 hybrids tested, other than Minhybrids, were given maturity ratings of 94-98 days or above, and are considered to mature too late to be well adapted to this zone. In the Northern Zone only 4 of the 35 hybrids tested were given maturity ratings of 87-91 days or above, and were considered too late to be well adapted to this zone. Early maturity is a very important factor in the Northern Zone.

Table 2. Corn Hybrids Registered for Sale in the Southern Zone and Tested Either in Three-Year Trials, Two-Year Trials, or Only in 1946

Variety name	Average per cent moisture 1943-44-46	Maturity rating in days Minn. Expt. Sta.
Minhybrid 500	27.4	104-108
Minhybrid 403	29.1	106-110
Pride D57	29.6	108-112
Murdock	30.2	
Minhybrid 404	30.5	
Minhybrid 405	30.5	110-114
Pointer 275	30.9	
Quiram 73	31.6	111-115
Pride D56	31.7	
Reid National 111	31.7	
Minhybrid 406	31.7	
McNeilly 1938	32.0	
DeKalb Expt. 22	32.0	
Epley E25	32.0	
Quiram 78	32.0	
Reid National 110W	32.1	
Minhybrid 408	32.6	113-117
Reid National 112L	32.9	
Minhybrid 407	32.9	
Eggerth C	33.0	
Reid National 112R	33.0	
Jacques 1157J	33.2	
Pride D62	33.3	
Haapala 120	33.4	114-118
Pride D66	33.5	
DeKalb 443	33.8	
Wisconsin 608	33.8	
Knudsen Iowa 939	34.0	115-119
Parcaut 931A	34.0	
Epley Ill. 101	34.1	
Henry Field 100R	34.4	
DeKalb 450	34.4	
Pioneer 340	34.6	
DeKalb 458	34.6	
Matheson 320	34.7	116-120
Jacques 1158J	34.8	
Gurney 112	35.0	
DeKalb 609	35.2	
Pioneer 341	35.4	117-121
Eggerth Special A	35.5	
Pfister 4897	35.5	
Kingscrost KY2	36.0	
Eggerth A	36.1	
Mullins J40	36.1	
Farmers 322	36.2	
Jacques 1209J	36.3	
Farmers 321A	36.6	119-123
Pfister 5897	36.9	
Pride D78	37.2	
Least significant difference at 5 per cent point	1.3	

Variety name	Average per cent moisture 1942-44-46	Maturity rating in days Minn. Expt. Sta.
Minhybrid 403	29.2	106-110
Minhybrid 404	30.7	108-112
Minhybrid 405	30.8	110-114
Haapala 204	32.7	112-116
Farmers 304A	33.7	114-118
McNeilly 1942	34.7	115-119
Jacques 1205J	35.7	117-121
Parcaut Golden King	36.2	
Least significant difference at 5 per cent point	1.1	

Variety name	Average per cent moisture 1942-43-46	Maturity rating in days Minn. Expt. Sta.
Minhybrid 301	25.6	105-109
Minhybrid 403	26.4	106-110
Minhybrid 404	27.3	108-112
Minhybrid 405	27.7	110-114
Crystal 110 Silo Corn	28.9	112-116
Reid National 115$_1$	32.6	118-122
DeKalb 607	33.4	120-124
Least significant difference at 5 per cent point	1.1	

Variety name	Average per cent moisture 1944-46	Maturity rating in days Minn. Expt. Sta.
Minhybrid 500	29.2	104-108
Minhybrid 403	30.9	106-110
Murdock	30.9	108-112
DeKalb 201	30.9	
Haapala 132	31.4	108-112
Jacques 1051J	31.6	
Minhybrid 405	32.3	110-114
Reid National 104	32.5	
Pfister 77	32.9	
Minhybrid 404	33.0	108-112
Cargill 110N	33.1	110-114
Pfister 75	33.1	
Pointer 278	33.4	
DeKalb 241	33.4	
Minhybrid 406	33.6	111-115
Pfister Ens. A (Silage)	33.7	
Thompson 22	33.8	
Cargill 115N	33.9	
Minowa 212	33.9	
Minnesota Seed Co. V193	33.9	
Minhybrid 408	34.4	113-117
Minowa 110	34.5	
Minhybrid 407	34.7	
Funk's G12	34.7	
Matheson 280	34.8	
Quiram 93	34.8	
Cargill L76	34.9	114-118
Brookfield 81	35.1	
Iowealth Ensilage 2	35.3	

Table 2. Corn Hybrids Registered for Sale in the Southern Zone and Tested Either in Three-Year Trials, Two-Year Trials, or Only in 1946 (Continued)

Variety name	Average per cent moisture 1944-46	Maturity rating in days Minn. Expt. Sta.
Turner E7A	35.3	
Pfister 274	35.3	
Beeghly Iowa 4316	35.3	114-118
Pfister 4710	35.3	
McNeilly 1951	35.5	
Pfister 374	35.5	
Pfister 6810	35.5	
Todd Hybrid Silo	35.6	
Pioneer 326	35.6	
Lowe 6W	35.6	
Minowa 308	35.6	
Minowa 310	35.7	
Knudsen K16	35.9	
Beeghly Iowa 939	36.0	115-119
Turner T46	36.0	
Gurney 115	36.1	
Corn Master 111	36.1	
Beeghly Iowa 4297	36.2	
Lowe 22	36.2	
Corn Master 88	36.2	
Carlson C8	36.4	
Farmers 427A	36.5	116-120
Turner T26	36.6	
Parcaut Special A	36.7	
Corn Master 99	36.8	
Turner S56	36.8	
Carlson C939A	36.8	
Carlson C5	36.9	
Reid National 115R	37.1	
Pfister Ens. B (Silage)	37.1	116-120
Carlson C10	37.2	
Funk's G31	37.2	
Beeghly Iowa 306	37.3	
Vinton K16	37.3	
Reid National 115	37.5	
Farmers 321	37.7	
Iowealth Ensilage 1	38.3	117-121
Wisconsin 643	38.7	
Iowealth Ensilage 3	38.8	
Parcaut 942A	39.1	
Least significant difference at 5 per cent point	1.5	
	Average per cent moisture 1942-46	
Minhybrid 301	26.0	105-109
Minhybrid 403	26.9	106-110
Minhybrid 405	28.1	110-114
Minhybrid 404	28.2	108-112
Jacques 1125	30.1	112-116
Least significant difference at 5 per cent point	1.1	
	Average per cent moisture 1946	
Pride W45	23.3	101-105
Minhybrid 500	25.6	104-108
Minhybrid 301	26.9	105-109

Variety name	Average per cent moisture 1946	Maturity rating in days Minn. Expt. Sta.
Minhybrid 403	27.8	106-110
Crystal 105 Silo Corn	27.9	
Reid National 100	28.4	107-111
Minhybrid 405	28.5	110-114
McCurdy 280	28.5	107-111
Minhybrid 505	28.5	105-109
Minhybrid 503	28.6	105-109
Reid National 110L	28.6	107-111
Minhybrid 504	28.9	
*Kingscrost KN1		108-112
*Reid National 105		
DeKalb 239	29.0	109-113
DeKalb 240	29.1	
Jacques 1050J	29.2	
Reid National 104Y	29.2	
Minowa 205	29.4	
McNeilly 1900	29.5	
Lowe M P E	29.6	
DeKalb 245	29.6	
Lowe 52	29.6	
Haapala 707W	29.8	
Pointer 270	29.8	
Lowe 38	30.1	
Tomahawk 3W	30.1	
Minhybrid 406	30.3	111-115
Mullins J67	30.3	
Ward 110-1	30.3	
Vinton V24	30.3	111-115
Land O'Lakes LOL115	30.4	
Quiram 88	30.4	
Minhybrid 404	30.5	108-112
Renk R202	30.5	111-115
Quiram 83	30.6	
Kingscrost KW	30.6	
Land O'Lakes LOL110	30.7	
Grohe 90X	30.8	
Renk R424	30.8	
Ward 110-2	30.9	
Quiram 86	30.9	
Renk R400	30.9	
Renk R333	31.0	112-116
Mullins J20	31.0	
Brookfield 887	31.0	
Cargill L18	31.0	
Eggerth C plus	31.1	
Quiram 76	31.1	
Henry Field 100	31.2	
Moellers 316	31.3	
Master Expt. 4-2	31.3	
Wisconsin 641A	31.3	
Brookfield 820	31.4	113-117
Pfister 285	31.4	
Knudsen 350	31.5	
McCurdy 320M	31.5	
DeKalb 501	31.6	
Elephant Fodder 4316	31.6	
Minhybrid 407	31.7	
Minhybrid 408	31.7	
Pride W55	31.7	
Ward 110-3	31.8	
Kingscrost K T	31.8	
Lac qui Parle 4316	32.0	

*These two hybrids were omitted from 1946 trials. Rating is based on previous data.

Table 2. Corn Hybrids Registered for Sale in the Southern Zone and Tested Either in Three-Year Trials, Two-Year Trials, or Only in 1946 (Continued)

Variety name	Average per cent moisture 1946	Maturity rating in days Minn. Expt. Sta.
Pioneer 343	32.0	
Cargill L77	32.0	
Heim 500C	32.1	
Knudsen 400	32.1	
Master Expt. 4-3	32.1	
Pioneer 351	32.1	
Moews 15	32.2	
McCurdy 420	32.2	
Turner T20	32.2	
DeKalb 243	32.3	
Farmers Union Ia. 939	32.3	
Jacques 1159A	32.3	
Pfister 282	32.4	114-118
Funk's G29A	32.4	
Matheson 380	32.4	
Matheson 220	32.5	
Knudsen 280	32.5	
Gurney 105	32.5	
Pfister 253	32.5	
Pfister 252	32.5	
Pride D62A	32.5	
Jacques 1121	32.6	
Royal 939	32.7	
Iowealth S	32.8	
Brookfield 990	32.9	
Pioneer 344	32.9	
Quiram 95	32.9	
McCurdy 112M	33.0	
Knudsen 320	33.1	
Moellers 305	33.1	
McCurdy 400	33.1	
Moews 14	33.1	
Farmers Union Ia. 306	33.2	
Triumph 42	33.4	
Jacques 1202	33.4	
Parcaut P5	33.4	
Vinton V24A	33.6	115-119
Vinton K17	33.9	
Pioneer 330B	34.3	116-120
Heim 306	34.4	
DeKalb 506	34.9	117-121
Turner N14A	35.0	
Pioneer 331	36.1	118-122
Pride W59	39.6	121-125
Least significant difference at 5 per cent point	1.7	

Table 3. Corn Hybrids Registered for Sale in the South Central Zone and Tested Either in Three-Year Trials, Two-Year Trials, or Only in 1946

Variety name	Average per cent moisture 1942-43-46	Maturity rating in days Minn. Expt. Sta.
Minhybrid 500	27.8	104-108
Minhybrid 301	28.9	105-109
Haapala Hy-Silo 20	30.4	106-110
Least significant difference at 5 per cent point	0.9	
	Average per cent moisture 1942-44-46	
Minhybrid 500	30.0	104-108
Minhybrid 301	30.1	105-109
Minhybrid 403	31.3	106-110
Pride C53	32.1	107-111
Wisconsin 525	32.3	
Reid National 110	35.1	112-116
Least significant difference at 5 per cent point	1.0	
	Average per cent moisture 1943-44-46	
Pioneer 359	26.0	104-108
Minhybrid 500	26.1	
Minnesota 13, U. Farm	26.7	
Pride D44	27.1	105-109
Minhybrid 301	27.4	
Pride D43A	27.9	106-110
Quirams 63	28.3	106-110
Quirams 68	28.4	
Funk's G1A	28.5	
Minhybrid 505	28.9	105-109
Minhybrid 503	29.1	
Minhybrid 504	29.5	107-111
Cargill 108N	30.1	
Kingscrost KO	30.6	109-113
Least significant difference at 5 per cent point	0.9	
	Average per cent moisture 1943-46	
Minhybrid 500	24.2	104-108
Minnesota 13, U. Farm	25.5	
Minhybrid 301	26.1	105-109
Minhybrid 505	27.0	
Minhybrid 503	27.2	
Pride B35	27.4	
Minhybrid 504	27.4	107-111
Least significant difference at 5 per cent point	0.9	

Table 3. Corn Hybrids Registered for Sale in the South Central Zone and Tested Either in Three-Year Trials, Two-Year Trials, or Only in 1946 (Continued)

Variety name	Average per cent moisture 1944-46	Maturity rating in days Minn. Expt. Sta.
Minhybrid 602	26.2	98-102
Funk's G2	27.3	104-108
Minhybrid 500	27.6	
Minnesota 13, U. Farm	27.6	
Minhybrid 301	28.0	105-109
Jacques 1004	28.0	
DeKalb 302	28.9	
Pfister 50	29.2	
Jacques 1001J	29.2	
Pfister 55	29.3	
Funk's G6	29.6	
Minhybrid 403	29.6	106-110
Henry Field 90	29.9	105-109
Pioneer 379	30.0	
Funk's G3	30.2	
Cargill 103N	30.2	
Gurney's Silver Hybrid	30.4	
Pointer A7	30.4	
Pioneer 358A	30.8	
Minhybrid 505	30.9	
Minhybrid 503	31.0	
Reid National 108	31.3	
Pioneer 381	31.4	
Minhybrid 504	31.6	107-111
Turner T12	31.7	
Reid National 99A	31.8	
Haapala 130	31.9	
Gurney's Golden 100	32.5	109-111
Corn Master 77	32.5	
Mullins J10	32.2	111-115
Least significant difference at 5 per cent point	1.2	

Variety name	Average per cent moisture 1946	Maturity rating in days Minn. Expt. Sta.
Triumph 52	23.2	98-102
Mullins J78	24.4	100-104
Minhybrid 602	24.9	98-102
Minhybrid 500	25.1	104-108
Mullins J76	25.2	
Haapala 300	25.3	
Funk's G24	25.3	
Jacques 1075	25.4	
Cargill 100N	25.4	
Triumph 53	25.8	
Reid National 92	25.9	
Tomahawk 11	25.9	
Tomahawk 30	25.9	
Minhybrid 301	26.0	105-109
Pointer A2	26.1	
Renk R111	26.2	
Sokota 224	26.2	
Pointer 345	26.2	
Minnesota 13, U. Farm	26.2	104-108
Mullins J79	26.4	105-109
Tomahawk 14	26.5	
Funk's G5	27.3	106-110
DeKalb 65	27.4	
Cargill G23	27.4	
Tomahawk 20	27.5	
Mullins J64	27.5	106-110
Sokota 232	27.5	
Parcaut P1	27.7	
Wisconsin 455	27.7	
Tomahawk 12	27.8	
Minhybrid 403	27.9	106-110
Tomahawk 35	27.9	
Tomahawk 21	28.2	
Mullins J65	28.2	
Kingscrost KJ	28.5	107-111
Reid National 95	28.6	
Tomahawk 18	28.6	
Tomahawk 28	28.6	
Pride B45A	28.6	
Renk R200	28.6	
Funk's G39	28.7	
Minhybrid 505	28.8	105-109
King O'Corn GP96	28.8	107-111
McCurdy 210	29.0	
Kingscrost KS6	29.0	
Minhybrid 503	29.1	
Tomahawk 34	29.1	
Pfister 51	29.1	
Kingscrost KB	29.1	
Newday S46	29.1	
Cargill G89	29.2	107-111
Minowa 200	29.2	
Pfister 50A	29.3	
Minhybrid 504	29.4	
Haapala 709	29.4	
Brookfield 691	29.4	
DeKalb 63	29.6	109-113
Triumph 51	29.6	
Mullins J63	29.7	
Master Expt. 4-1	29.7	
Haapala 360A	29.8	
Land O'Lakes LOL105	30.0	
Pfister 52	30.1	
Master Expt. 5-1	30.1	
Cargill L44	30.2	
King O'Corn GPW7	30.3	
Sokota Expt. 1	30.4	
Ward 100-2	30.6	111-115
Lowe 32	30.7	
Triumph 41	30.8	
McCurdy 95M	30.8	
Pfister 60	30.9	
Minhybrid 408	31.0	113-117
Royal 4316	31.1	
Quiram 66	31.2	
Funk's G12A	31.3	113-117
Cargill L38	31.4	
Renk R202A	31.6	
Kingscrost KL	31.7	115-119
Farmers Union Ia. 4316	32.0	
Triumph 43	32.1	
Lowe 34	32.3	
Reid National 98	32.7	
Least significant difference at 5 per cent point	1.3	

Table 4. Corn Hybrids Registered for Sale in the Central Zone and Tested Either in Three-Year Trials, Two-Year Trials, or Only in 1946

Variety name	Average per cent moisture 1942-44-46	Maturity rating in days Minn. Expt. Sta.
Minhybrid 602	36.0	98-102
Pride B38	36.4	100-104
Pride D33A	36.4	
Haapala 360	36.4	
Minn. Seed Company, Imp. V170	36.6	
Minhybrid 604	36.8	
Kingscrost D4	37.2	
Kingscrost KS2	37.3	
Minhybrid 603	37.4	101-105
Pride D32	37.5	102-106
Minhybrid 500	37.7	104-108
Brookfield 54	38.2	
Least significant difference at 5 per cent point	1.1	

Variety name	Average per cent moisture 1943-44-46	Maturity rating in days Minn. Expt. Sta.
Minhybrid 607	32.1	97-101
Kingscrost KA4	32.1	
Pride B23	32.7	
Minhybrid 608	33.5	99-103
Minnesota 13, Morris	33.7	
Minhybrid 604	33.9	100-104
Minhybrid 603	35.6	101-105
Minhybrid 500	36.8	104-108
Least significant difference at 5 per cent point	1.1	

Variety name	Average per cent moisture 1943-46	Maturity rating in days Minn. Expt. Sta.
Minhybrid 607	30.7	97-101
Haapala Hybrid Silo 10A	31.2	
Minhybrid 608	32.6	99-103
Minhybrid 604	32.7	100-104
Minnesota 13, Morris	32.8	99-103
Minhybrid 603	34.9	101-105
Minhybrid 500	36.5	104-108
Least significant difference at 5 per cent point	1.9	

Variety name	Average per cent moisture 1944-46	Maturity rating in days Minn. Expt. Sta.
Minhybrid 607	33.0	97-101
Corn Master 66	33.5	
Cargill 93N	33.9	
Minhybrid 608	34.2	99-103
Minnesota 13, Morris	34.5	
Minhybrid 602	34.8	98-102
Minhybrid 604	35.0	100-104
Jacques 957	35.2	
Wisconsin 464	35.5	
Haapala 362	35.6	
Minhybrid 603	36.0	101-105
Wisconsin 416	36.0	
Cargill 98N	36.1	
Minhybrid 500	36.3	104-108
DeKalb 58	37.1	
Minhybrid 505	37.4	105-109
Pfister 49	37.5	
Minhybrid 504	38.5	107-109
Minhybrid 503	39.1	105-109
Least significant difference at 5 per cent point	1.5	

Variety name	Average per cent moisture 1946	Maturity rating in days Minn. Expt. Sta.
Tomahawk 4	30.0	97-101
Minhybrid 607	31.0	
Quiram 38	31.5	
Quiram 53	31.7	
Brookfield 43W	31.9	
Land O'Lakes LOL100	32.1	
Mullins J77	32.2	
Funk's G18	32.6	
Minhybrid 608	32.8	99-103
Royal 95	33.0	
Mullins J80	33.1	
Minnesota 13, Morris	33.3	
Minhybrid 604	33.6	100-104
Master Expt. 6-1	33.6	
McCurdy 85M	33.7	
Minhybrid 602	34.0	98-102
Jacques 902	34.1	100-104
Wisconsin 460	34.6	
DeKalb 62	34.7	
Brookfield 548	34.8	100-104
Newday S37	34.9	
Reid National 102	35.0	101-105
Minhybrid 603	35.0	
Quiram 46	35.3	
Haapala 400A	35.3	
Minhybrid 500	35.4	104-108
Tomahawk 10	35.6	102-106
Ward 100-1	35.6	
Master Expt. 6-2	35.6	
Cargill Silage 100	35.8	103-107
Turner E4A	35.8	
Newday S40	35.9	
Quiram 56	35.9	
Minhybrid 505	36.6	105-109
Newday S41	37.0	
Minhybrid 504	38.8	107-111
Minhybrid 503	39.0	105-109
Krizer K90	44.8	109-113
Least significant difference at 5 per cent point	3.0	

Table 5. Corn Hybrids Registered for Sale in the North Central Zone and Tested Either in Three-Year Trials, Two-Year Trials, or Only in 1946

Variety name	Average per cent moisture 1942-44-46	Maturity rating in days Minn. Expt. Sta.
Minhybrid 701	36.6	88-92
Minhybrid 702	37.2	87-91
Minhybrid 700	37.4	88-92
Pride B15	41.0	94-98
Least significant difference at 5 per cent point	1.0	
	Average per cent moisture 1943-44-46	
Minhybrid 701	37.2	88-92
Minhybrid 702	37.3	87-91
Minhybrid 700	37.8	88-92
Pride D4	38.1	
Gurney's Golden 90	41.3	92-96
Wisconsin 341	41.6	
Reid National 90	43.9	94-98
Least significant difference at 5 per cent point	1.4	
	Average per cent moisture 1942-46	
Minhybrid 701	33.0	88-92
Minhybrid 800	34.0	86-90
Minhybrid 702	34.7	87-91
Minhybrid 700	34.8	88-92
Haapala 354	36.0	90-94
Minhybrid 604	40.7	100-104
Least significant difference at 5 per cent point	1.2	
	Average per cent moisture 1943-46	
Minhybrid 701	33.9	88-92
Minhybrid 702	34.8	87-91
Minhybrid 700	35.4	88-92
Pride B2	35.4	
Least significant difference at 5 per cent point	1.9	
	Average per cent moisture 1944-46	
Minhybrid 701	37.6	88-92
Jacques 852	37.7	86-90
Cargill 91N	38.4	88-92
Minhybrid 702	38.7	87-91

Variety name	Average per cent moisture 1944-46	Maturity rating in days Minn. Expt. Sta.
Minhybrid 700	38.7	88-92
Kingscrost KE2	39.1	
Cargill 85N	39.1	
Minnesota Seed Imp. V100	39.2	
Corn Master 55	39.7	89-93
Jacques 853	40.4	90-94
Haney No. 13 (Mellum)	40.8	87-91
Brookfield 22	40.8	90-94
	Average per cent moisture 1944 and 1946	
Minhybrid 706	41.2	90-94
Jacques 908	42.7	92-96
Pfister 35	42.9	
Pride B17	43.3	94-98
DeKalb 56	43.3	
DeKalb 54	44.3	96-100
Minhybrid 602	44.8	98-102
Least significant difference at 5 per cent point	1.4	
	Average per cent moisture 1946	
Minhybrid 701	31.4	88-92
Pride D1	32.8	
King O'Corn GP87	33.0	
Reid National 88	34.1	
Minhybrid 800	34.6	86-90
Minhybrid 700	34.8	88-92
Minhybrid 801	35.0	84-88
Minhybrid 702	35.2	87-91
Land O'Lakes LOL90	35.3	88-92
King O'Corn GP84	35.9	89-93
Reid National 86	36.0	
Funk's G40	36.5	
Haapala 357	36.9	
Pfister 10	37.8	91-95
Funk's G17	37.9	
Funk's G183	38.0	
Funk's G188	38.1	
Wisconsin 275	38.4	
Renk R44	38.5	
Nietfeld N23	38.5	
Haapala 356	38.6	
McCurdy 80M	38.7	
Minhybrid 706	39.0	90-94
Renk R77	39.2	92-96
Haapala 400	39.5	
Pride C8	40.2	
Minhybrid 607	40.5	97-101
Newday SW33	40.5	94-98
Kingscrost KH	40.6	
Newday S32	41.1	
Brookfield 44	41.1	
Newday 851	41.2	
Funk's G35	41.2	
AGSCO 501	41.3	
Brookfield 444	41.5	96-100

Table 5. Corn Hybrids Registered for Sale in the North Central Zone and Tested Either in Three-Year Trials, Two-Year Trials, or Only in 1946 (Continued)

Variety name	Average per cent moisture 1946	Maturity rating in days Minn. Expt. Sta.
Newday N31	41.6	
Master Expt. 7-1	41.7	
Cargill Silage 95	41.7	
Minhybrid 602	41.8	98-102
Sokota 212	42.1	96-100
Renk R88	42.1	
Brookfield 226	42.2	
Minhybrid 604	43.0	100-104
Reid National 93	43.7	
Funk's G177	43.7	
Funk's G4	44.2	
Wisconsin 412A	44.8	
King O'Corn GP90	44.8	
Jacques 959	44.9	
Newday S35	46.7	104-108
Cargill 95N	50.9	108-112
Farmer's Union F. U. 90	54.3	112-116
Least significant difference at 5 per cent point	2.0	

Table 6. Corn Hybrids Registered for Sale in the Northern Zone and Tested Either in Four-Year Trials, Three-Year Trials, Two-Year Trials, or Only in 1946

Variety name	Average per cent moisture 1942-43-44-46	Maturity rating in days Minn. Expt. Sta.
Jacques 802	34.3	82-86
Wisconsin 240	34.6	
Wisconsin 255	34.8	
Wisconsin 279	36.3	86-90
Minhybrid 800	37.0	
Least significant difference at 5 per cent point	0.9	
	Average per cent moisture 1942-44-46	
Minhybrid 800	36.2	86-90
Pride B3	36.4	
Minhybrid 702	37.7	87-91
Least significant difference at 5 per cent point	1.0	
	Average per cent moisture 1943-44-46	
Master F21	35.9	84-88
Jacques 803	36.0	
Minhybrid 801	37.2	
Minhybrid 800	38.2	86-90
Gurney's 85	38.4	
Least significant difference at 5 per cent point	1.1	
	Average per cent moisture 1944-46	
Newday 803	33.2	82-86
Brookfield 17	36.7	86-90
Brookfield 15	37.0	
Newday 831	37.0	
Minhybrid 801	37.1	84-88
Minnesota No. 13 Haney (Mellum)	37.6	87-91
Minhybrid 800	37.6	86-90
Newday 872	37.7	
Pride B5	38.1	
Kingscrost KF1	38.1	
Minhybrid 702	39.5	87-91
Least significant difference at 5 per cent point	1.4	
	Average per cent moisture 1946	
Newday N3	28.5	82-86
Newday N11	30.6	84-88
Land O'Lakes LOL80 SP.	30.8	
Master Expt. 8-1	31.6	
Newday N21	32.6	86-90
Minhybrid 800	32.8	
Master Expt. 8-2	33.0	
AGSCO 279	33.2	
Haapala 10D	33.8	
Kingscrost KE3	33.9	86-90
Newday N22	33.9	
Minhybrid 801	34.0	84-88
Kingscrost KF5	34.1	86-90
Kingscrost KG	34.4	
AGSCO 801	34.2	
Newday NF10	34.6	
Kingscrost KF7	35.2	
Land O'Lakes LOL85	35.3	
Haapala 270	35.9	87-91
Minhybrid 702	36.4	
AGSCO 800	36.7	88-92
Wisconsin 275A	37.2	
Jacques 854	37.5	90-94
Minhybrid 602	40.9	98-102
Least significant difference at 5 per cent point	2.4	